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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re The Application of:
William P. Acker et al.

Serial No.: 09/718,148

Filed: November 21, 2000

For: FUEL CELL SYSTEM WITH
ACTIVE METHANOL CON-
CENTRATION CONTROL

Examiner: John S. Maples

Art Unit: 1745

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November 20, 2002CERTIFICATE OF TRANSMISSION

I hereby certify that the following paper is being facsimile transmitted to the Patent and Trademark Office on November 20, 2002.


Meredith MurrayHonorable Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

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GROUP 1700AMENDMENT

Please replace claim 10 with the following amended version thereof to incorporate the changes on the accompanying mark-up page:

- b1
- 1 10. (Twice Amended) A method of regulating a concentration of methanol in a direct
 - 2 methanol fuel cell system comprising the steps of:
 - 3 using a detector to sense changes in an output power level of said fuel cell and pro-
 - 4 ducing a signal indicative of said changes; and

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5 using said signal to drive a concentration regulator which responsively controls the amount
6 of methanol supplied to said fuel cell's anode in response to changes sensed in said output
7 power level.

Please replace claim 28 with the following amended version thereof to incorporate the changes on the accompanying mark-up page:

1 28. (Twice Amended) A method of regulating a concentration of fuel in a direct ox-
2 idation fuel cell system comprising the steps of:
3 sensing changes in potential at an anode or load level of said fuel cell system; and
4 using said sensed changes in potential to drive a concentration regulator which re-
5 sponsively controls the amount of methanol supplied to said fuel cell's anode when
6 said power level increases and decreases, thereby minimizing cross-over of methanol
7 through said fuel cell's membrane electrolyte.

Please add the following new claims:

Please add the following new claim 41:

1 41. (New) A method of regulating a concentration of methanol in a direct methanol fuel
2 cell system comprising the steps of:
3 providing a diffusion layer disposed between said anode and a source of methanol;
4 and
5 varying a rate of diffusion of methanol through said diffusion layer, thereby control-
6 ling a methanol concentration at said anode.

(Please add the following new claim 42.)

1 42. (New) The method as in claim 41 wherein said rate of diffusion is varied by com-
2 pressing or decompressing said diffusion layer.

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 Please add the following new claim 43:

- 1 43. (New) The method as in claim 41 wherein said rate of diffusion is varied by changing
2 a porosity of said diffusion layer.

Please add the following new claim 44:

- 1 44. (New) The method as in claim 41 wherein said rate of diffusion is varied by changing
2 a tortuosity of said diffusion layer.